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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,956	04/08/2004	Michale McBrearty	McBrearty-Bur	9547

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EXAMINER

LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,956

Applicant(s)

MCBREARTY ET AL.

Examiner

Daniel S. Larkin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 4 is/are rejected.
- 7) ☒ Claim(s) 1-3 and 5-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8 April 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-10, in the reply filed on 26 August 2005 is acknowledged.
2. Claims 11-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 28 August 2005.

Information Disclosure Statement

3. The information disclosure statement filed 08 April 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because a legible copy of each cited non-patent literature publication has not be provided to the examiner. It has been placed in the application file, but the information referred to therein, specifically the non-patent literature publications, has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference numeral -- 1 -- does not appear within Figure 1 as suggested by the disclosure on page 8, line 2.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

Page 1, first section, line 3: The abbreviation -- U.S. -- should be inserted prior to the term "patent"; the term "patent" should be corrected to read -- Patent --; and the abbreviation -- No. -- should be inserted after the term "patent".

Page 1, first section, line 4: A -- comma -- should be inserted after the dates "1993" and "1996"; the first occurrence of the conjunction "and" should be deleted; the abbreviation -- U.S. -- should be inserted prior to both occurrences of the term "patent"; both occurrences of the term "patent" should be corrected to read -- Patent --; and the abbreviation -- No. -- should be inserted after both occurrences of the term "patent".

Page 1, second section, line 2: A -- period -- should be inserted after the abbreviation "MD".

Page 2, line 2: The term "materials" should be corrected to read -- material --.

Page 2, line 23: A -- comma -- should be inserted prior to the term "such".

Page 2, line 24: A -- comma -- should be inserted after the term "sensor".

Page 2, line 25: A -- comma -- should be inserted after the term "pressure".

Page 3, line 5: Should the phrase -- , U.S. Patent No. 5,208,544 -- be inserted after the name "Perusich"?

Page 3, line 5: Should the phrase -- et al. -- be inserted after the name "Senturia"; and the phrase -- , U.S. Patent No. 5,208,544 -- be inserted prior to the conjunction "and"?

Page 3, line 7: Should the phrase -- , U.S. Patent No. 4,710,550 -- be inserted after the name "Kranbuehl"?

Page 3, line 9: Should the phrase -- et al. -- be inserted after the name "Senturia"?

Page 5, line 9: A -- comma -- should be inserted prior to the term "such".

Page 5, line 16: A -- comma -- should be inserted prior to the term "such".

Page 5, line 17: A -- comma -- should be inserted after the term "foodstuffs".

Page 5, line 21: A -- comma -- should be inserted prior to the term "such".

Page 5, line 22: A -- comma -- should be inserted after the term "sensors"; and the term "materials" should be corrected to read -- material --.

Page 7, lines 21 and 24: A -- comma -- should be inserted after reference designation "8a"; the first occurrence of the conjunction "and" should be deleted; and a -- comma -- should be inserted after reference designation "8b".

Page 7, line 27: A -- period -- should be inserted after the "Celsius" designation.

Page 8, line 15: The numeral "20" should be corrected to read -- twenty --.

Page 8, line 26: The phrase -- , as shown in Figures 1a and 1b, -- should be inserted after the term "housing".

Page 8, line 27: A -- comma -- should be inserted after the term "case".

Page 9, line 12: A -- comma -- should be inserted after the term "sensor".

Page 9, line 15: A -- comma -- should be inserted prior to the term "but".

Page 10, line 25: The phrase -- , as shown in Figure 1a, -- should be inserted after reference numeral "18".

Page 12, line 11: A -- comma -- should be inserted after reference numeral "36" and after the term "windows".

Page 13, line 15: A -- comma -- should be inserted prior to the term "respectively".

Page 14, top of claim: A -- colon -- should be inserted after the term "claims".
Appropriate correction is required.

Claim Objections

7. Claims 1-10 are objected to because of the following informalities:

Re claim 1, claim line 1: The term "materials" should be corrected to read -- material --.

Re claim 1, claim line 2: A -- colon -- should be inserted after the term "comprising".

Re claim 1, claim line 4: The first occurrence of the phrase "said liquid medium" lacks antecedent basis. This limitation has not been previously and positively claimed within the body of the claim. This limitation only appears within the preamble.

Re claim 1, claim lines 9 and 10: The phrase "said plurality of sensors" lacks antecedent basis. The plurality of sensors has not been previously and positively claimed within the body of the claim. This limitation only appears within the preamble.

Re claim 1, claim line 18: A -- comma -- should be inserted after the term "channel".

Re claim 1, claim line 22: A -- comma -- should be inserted after the term "block".

Re claim 1, claim line 24: A -- comma -- should be inserted after the term "dimensions".

Re claim 1, claim line 39: A -- comma -- should be inserted after the term "electrodes".

Re claim 1, claim line 44: A -- comma -- should be inserted after the term "channel".

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Re claim 1, claim line 48: A -- comma -- should be inserted after the term "channel".

Re claim 1, claim line 49: A -- comma -- should be inserted after the term "medium".

Re claim 1, claim line 53: The conjunction -- and -- should be inserted after the term "plate".

Re claim 1, claim line 54: The term "detectors" should be corrected to read -- detector --.

Re claim 1, claim line 55: The "semicolon" should be replaced with a -- period --.

Re claim 2, claim line 2: The phrase -- of the flow channel -- should be inserted after the term "height".

Re claim 3, claim line 2: The phrase "said metal housing means" lacks antecedent basis.

Re claim 3, claim line 3: The phrase "said height along entire said length" should be corrected to read -- height along the entire length of said flow channel --.

Re claim 4, claim line 6: The term "materials" should be corrected to read -- material --.

Re claim 5, claim line 2: The article -- an -- should be inserted prior to the term "individual".

Re claim 8, claim line 1: The article "a" and the term "said" should be deleted.

Re claim 8, claim line 31: The article "a" and the term "said" should be deleted.

Re claim 8, claim line 5: The phrase "said first ceramic block means" lacks antecedent basis.

Re claim 8, claim line 5: The article -- a -- should be inserted prior to the term "first".

Re claim 8, claim line 6: Both occurrence of the term "said" should be deleted; and the article -- a -- should be inserted prior to the term "second".

Re claim 8, claim line 6: The terms "first" and "said" should be transposed.

Re claim 8, claim line 7: The terms "second" and "said" should be transposed.

Re claim 8, claim line 8: The term "direction" should be corrected to read -- directions --; and the term "said" should be deleted.

Re claim 10, claim line 2: A -- comma -- should be inserted after the term "ports".

Re claim 10, claim line 4: A -- comma -- should be inserted after the term "housing". Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 4, claims lines 2-6: The examiner is unclear if the claim is written to

claim one of many listed sensor from the representative group; or a combination of sensor groupings from the representative group. The lack of punctuation makes the claim confusing.

Re claim 4, claim line 6: The phrase “any sensor means for measuring said material properties” is deemed to be indefinite because one is unclear as to what types of sensors are to be included by “any sensor means” and which claims are to be expressly excluded.

Allowable Subject Matter

10. The following is a statement of reasons for the indication of allowable subject matter:

Prior art was not relied upon to reject claims 1-10 because the prior art fails to teach and/or make obvious an apparatus for monitoring material properties of a liquid medium, comprising: a flow channel of predetermined shape and dimensions; a metal housing surrounding the flow channel, the metal housing comprising an upper half and a lower half that are contiguous; a first recess in the lower half for receiving a first ceramic block thereby creating an exposed planar surface of the first ceramic block that is contiguous with the flow channel; a second recess in the upper half for receiving a second ceramic block thereby creating an exposed surface of the second ceramic block that is contiguous with the flow channel, the second ceramic block disposed opposite and facing the first ceramic block; a first multitude of finger electrodes disposed on said exposed planar surface of the first ceramic block; and a second multitude of finger

electrodes disposed on the exposed planar surface of the first ceramic block so that no finger electrode touches any other said finger electrode in combination with all of the remaining limitations of the claim.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art to US 3,952,577 (Hayes et al.) discloses an apparatus for measuring the flow rate and/or viscous characteristics of fluids comprising pressure transducers placed with a capillary flow passage.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin
AU 2856
18 November 2005



DANIEL S. LARKIN
PRIMARY EXAMINER